

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/000227

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01D17/02 B01D17/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	US 3 914 175 A (KUNZ OTTO ET AL) 21 October 1975 (1975-10-21) column 2, line 5 - column 3, line 65; figures	1-3,5,7, 9,10
X	US 4 650 581 A (ANGLES MICHEL ET AL) 17 March 1987 (1987-03-17) column 4, line 57 - column 7, line 54; figures	1-3,7,8
X	DE 31 51 749 A (TS PK TEKH B V RYBOPROM AZOVO ; SEVASTOPOLSKOE PROIZV OB RYBNO (SU)) 14 July 1983 (1983-07-14) page 13 - page 17; figures	1-3,5,7, 9,10
X	EP 0 702 991 A (BUDERUS GUSS GMBH) 27 March 1996 (1996-03-27) the whole document	1,7
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance, the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *G* document member of the same patent family

Date of the actual completion of the international search

13 June 2005

Date of mailing of the international search report

08. 07. 2005

Name and mailing address of the ISA

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PCT/EP2005/000227

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No
X	DE 296 16 832 U (BUDERUS GUSS GMBH) 19 December 1996 (1996-12-19) the whole document -----	1-3,5,7, 9,10
X	EP 0 566 035 A (DYCKERHOFF & WIDMANN AG) 20 October 1993 (1993-10-20) claims; figures -----	1,7
X	US 4 022 694 A (FRUMAN DANIEL H) 10 May 1977 (1977-05-10) the whole document -----	1,2,6,7, 9,11
X	US 4 123 365 A (MIDDELBECK ET AL) 31 October 1978 (1978-10-31) column 2, line 6 - line 52; figure 1 -----	12-14, 16,18-20
A	US 5 531 890 A (KEENAN ET AL) 2 July 1996 (1996-07-02) the whole document -----	12-22

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-11

System and method for separating an emulsion comprising
vessel, coalescing element(s) and guiding means

2. claims: 12-22

System and method for separating an emulsion, comprising
vessel, coalescing element(s) and weir

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2005/000227

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(19) World Intellectual Property Organization
International Bureau



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(10) International Publication Number
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17/04

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(21) International Application Number:
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(25) Filing Language: English

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Declarations under Rule 4.17:

- of inventorship (Rule 4.17(iv)) for US only
- of inventorship (Rule 4.17(iv)) for US only

(71) Applicant (for all designated States except AE, AL, AU, AZ, BG, CA, CO, CZ, DE, DK, FR, GB, GR, HU, ID, IE, IL, IT, JP, KR, KZ, LT, MX, NL, NO, NZ, OM, PL, RO, RU, SI, SK, TM, TN, TR, TT, UA, US, UZ, ZA): **PRAD RESEARCH AND DEVELOPMENT N.V.** [NL/NL]; De Ruyterkade 62, Willemstad, Curacao (AN).

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- with international search report
- with amended claims

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(72) Inventors; and

(75) Inventors/Applicants (for US only): **PAYS, Christian**

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **SMALL DROPLETS RECOVERY SYSTEM**

(57) Abstract: A system for separating an emulsion fluid into a recovered fluid and a purified fluid. The emulsion fluid comprises a continuous phase and a dispersed phase. The purified fluid is essentially constituted of the continuous phase. The system comprises a vessel at an inlet of which the emulsion fluid may flow. The system further comprises one or more coalescing element. Each coalescing element allows to coalesce at least a portion of the dispersed phase into large drops further detached from the coalescing element upon a flow of the emulsion fluid. The system further comprises one or more guiding mean. Each guiding mean is associated with one coalescing element to guide the detached large drops for further recovery.

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